REMARKS/ARGUMENTS

The office action of January 14, 2005 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-41 remain pending in this application. Claim 42-46 have been canceled without prejudice or disclaimer.

SECTION 102 REJECTIONS

Claims 1-9, 12-26 and 29-34 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 5,865,464 to Bhandari et al. ("Bhandari"). Applicants respectfully traverse this rejection.

Claims 1-8 and 18-25

The action continues to allege that Bhandari discloses all the features of independent claims 1 and 18. In the last response, applicants submitted that Bhandari failed to teach or suggest the claim 1 and 18 features of identifying media objects stored in the database that are related to the captured media object and inferring organization information for the media object based upon information obtained from each of the stored media objects that are related to the [captured] media object as well as organizing the media object in the database based upon the inference.

Refuting applicants' position, the action with reference to col. 10, lines 3-17 of Bhandari contends that "comparing the query to an archival multimedia object description" shows the claimed feature identifying media objects stored in the database that are related to the captured media object. Also, the action with reference to col. 6, lines 18-24 and col. 10, lines 3-17 of Bhandari alleges that "comparing the query to an archival multimedia object description in order to find a match" shows inferring organization information for the media object based upon information obtained from each of the stored media objects that are related to the [captured] media object as well as organizing the media object in the database based upon the inference. Applicants respectfully disagree.

The action appears to merge the disclosures in Bhandari of the two independent operations of inputting data to be associated with an image using natural language and querying the database for searching and retrieving desired images using natural language. With reference

to Figs. 2-4, Bhandari describes a software program "for inputting data that is to be associated with an image using natural language." Col. 3, lines 5-7. According to Bhandari, an image is captured; a user inputs description fields and a caption to be associated with the image; the caption undergoes natural language processing to produce the frame representation of the caption; the caption frame is cataloged in a frame database; and the image is stored in the image database. Col. 4, lines 26-43. The specifics of natural language processing to produce a frame are described col. 4, line 47 to col. 6, line 39. Nowhere does Bhandari teach or suggest that this process involves the claim 18 features of identifying media objects stored in the database that are *related to the captured media object* and inferring organization information for the media object *based upon information obtained from each of the stored media objects that are related to the media object* and organizing the media object in the database *based upon the inference.*

With reference to Fig. 5, Bhandari describes the software program for searching and retrieving desired images using natural language processing. As is clear, this process is performed after the frame database is populated with frames and is not part of inputting images. In this process, a user inputs a natural language query to search for an image. The natural language input is processed and then the frame database is searched using the frame representation of the query to determine if any frames in the frame database match. Col. 6, lines 41-49. Frames which match are then presented to the user on a display for permitting the user to view the images. Col. 7, lines 49-52. According to Bhandari, if the user finds the images acceptable, he may print, order, transmit, store in an album or further manipulate the retrieved images. Plainly, this process is wholly independent of inputting images into the database.

Referring to the specific areas relied on by the action, col. 10, lines 3-17 are part of a claim directed to "retrieving a multimedia object" in the context of searching and retrieving desired images as shown in Fig. 5 and found in col. 6, lines 41-49. The reference to comparing the query roles to the archived multimedia object description roles to identify matching roles is done solely to retrieve the image and nothing more. Tellingly, the query is input by a user and is not associated with an image which is being input.

Distinctly, claims 1 and 18 *organize the media object* based on the inference. That is, organize the media object based on the organization information for the media object based upon information obtained from each of the stored media objects that are related to the media object.

In view of the foregoing Bhandari is defective in several respects. Accordingly, independent claims 1 and 18 are patentably distinct from Bhandari for at least the above reasons. Claims 2-8, which ultimately depend from claim 1, and claims 19-25, which ultimately depend from claim 18, are patentably distinct from Bhandari for the same reasons as their ultimate base claim and further in view of the novel and non-obvious features recited therein.

Claims 9 and 26

The action continues to allege that Bhandari discloses all the features of independent claims 9 and 26. In the last response, applicants asserted, *inter alia*, that Bhandari lack a teaching or suggestion of comparing the date with threshold date information and identifying media objects stored in the database that are related to the media object based upon the comparison as recited in claims 9 and 26. Countering applicants' arguments, the final office action contends that Bhandari "teaches description fields and captions that are associated with each metadata, which include when the image was taken, creating a matching weight which is compared to a predetermined threshold weight" pointing to col. 4, lines 30-35, col. 6, lines 54-67, and col. 7, lines 1-5. *Final Office Action*, pages 25-26. Applicants respectfully disagree as set forth below.

According to Bhandari at col. 4, lines 30-40, a user inputs "description fields and caption to be associated with a particular image (metadata)." Col. 4, lines 30-31. Admittedly, the description fields can include when the image was taken. A caption can include "one or more natural language phrases or sentences without any grammar restrictions describing any characteristics of the image." Col. 4, lines 35-37. Importantly, nowhere does Bhandari teach or suggest that the caption includes when the image was taken. After the caption is input, it is processed in step S6 using natural language processing with the output result being the frame representation for the caption. Col. 4, lines 38-40. Notably, the caption is processed and not the description fields including when the image was taken.

In performing a search according to Bhandari, "the frame representation of the query is first matched role to role with S34 with the caption frames in the frame database." Col. 6, lines 54-56. Thereafter, the matching results are weighted and the number and score of matched frames are analyzed against a predefined threshold. Importantly, since when the image was taken has no part in the caption frame, contrary to the action's assertion the results and their weighting also do not incorporate when the image was taken. Thus, a comparison of Bhandari does not

involve comparing a date with threshold data information and identifying media objects stored in the database that are related to the media object based upon the comparison as recited in claim s9 and 26.

Moreover, claims 9 and 26 each call for inferring *organization information* for the media object based upon information obtained from each of the stored media objects related to the media object, and *organizing the media object in the database based upon the inference.* As discussed with respect to claims 1 and 18, Bhandari also lacks a teaching or suggestions of these features. For at least the aforementioned reasons, claims 9 are 26 patentably distinguishable from Bhandari.

Claims 12-14 and 29-31

In the last response, applicants submitted that Bhandari failed to teach or suggest inferring organization information for the media object based upon information obtained from each of the stored media objects that are related to the media object; and organizing the media object in the database based upon the inference as called for in claims 12 and 29. In reply, the action retorted that Bhandari "teaches comparing the query to an archival multimedia object description in order to find a match" pointing to col. 6, lines 16-24 and col. 10, lines 3-17. *Final Office Action*, p. 26

Applicants acknowledge that Bhandari compares a user-inputted natural language query to frame representation of stored images to find a match. Notwithstanding, the comparing operation is conducted for the purpose of finding an image having characteristics desired by the user and not to assist in organizing media objects. Indeed, when images are found in the Bhandari search, they are ranked and displayed for viewing by a user. A user may select any of the resulting images to be printed, ordered, transmitted over network, stored in an album or further manipulated. Tellingly, nowhere does Bhandari teach or suggest performing any action on the captured media object after performing this search, such as inferring organization information for the media object based upon information obtained from each of the stored media objects that are related to the media object; and organizing the media object in the database based upon the inference as called for in claims 12 and 29. For at least these reasons, claims 12 and 29 are patentably distinct from Bhandari. Claims 13 and 14, which depend from claim 12, and claims 30 and 31, which depend from claim 29, are considered allowable over Bhandari for the

same reasons as their base claim, and further in view of the advantageous features recited therein.

Claims 15 and 32

In the previous response, applicants argued that Bhandari lacked a teaching or suggestion of comparing a media object with media objects that are stored in the database; identifying the stored media objects in the database that include features in common with the media object; inferring organization information for the media object based upon information, obtained from each of the media objects including features in common with the media object, representing organization in the database; and organizing the media object in the database based upon the inference. In this regarding, applicants relied on the same arguments made with respect to claims 12-14 and 29-31 above with respect to the features of inferring and organizing and continues to believe that claims 15 and 32 are allowable for at least the same reasons as those claims.

Regarding the features of comparing a media object with media objects that are stored in the database; identifying the stored media objects in the database that include features in common with the media object, the action in reply to applicants' arguments again stated that Bhandari "teaches comparing the query to an archival multimedia object description in order to find a match" pointing to col. 6, lines 16-24 and col. 10, lines 3-17.

Applicants acknowledge that Bhandari compares a *user-inputted* natural language query to frame representation of stored images to find a match. Yet Bhandari does not compare one media object with media objects that are stored in the database and merely compares a user input to search for an object. Necessarily, Bhandari does identify stored media objects in the database that include features in common with the media object as there is only a comparison of a user input being performed against the frame representation of the stored images in the database. As such, claims 15 and 32 are patentably distinguishable from Bhandari.

Claims 16, 17, 34 and 35

To the extent independent claims 16, 17, 34 and 35 have the same or similar features as the independent claims discussed above, the reasons differentiating those claims from Bhandari apply to claims 16, 17, 34, and 35 as well. Accordingly, claims 16, 17, 34, and 35 are patentably distinguishable from Bhandari.

SECTION 103 REJECTIONS

Claims 10, 27, and 35-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bhandari in view of Loui et al., "Software System for Automatic Albuming of Consumer Pictures," published by ACM Multimedia Conference, 1999 ("Loui '99"). Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bhandari in view of Loui et al., "Automatic Image Event Segmentation and Quality Screening for Albuming Applications," published by IEEE International Conference on Multimedia and Expo, 2000 ("Loui '00"). Claim 28 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bhandari in view of Loui '99 and further in view of Loui '00. Applicants respectfully traverse these rejections.

Claims 10 and 27

In the last response, applicants submitted that the combination of Bhandari and Loui '99 would not have taught or suggest comparing the date on which the media object was captured with entries in a date book as recited in claims 10 and 27. To refute applicants' position, the final office action states that Loui '99 in section 2.1, p.1 60, lines 1-14 shows "clustering images based on events, [and] in order for that to be possible the dates and events must be compared to each other." *Final Office Action*, p. 27. Applicants agree that Loui '99 shows clustering images based on events. Nonetheless, that alone does not mean or imply that Loui '99 teaches or suggests comparing the date on which the media object was captured with *entries in a date book.* At most, Loui '99 time implies that time and date information is used to perform event clustering. However, the fact that time and date information is used to perform event clustering does not inherently or expressly suggest comparing the date on which the media object was captured with entries in a date book. As such, for at least this reason, Loui '99 fails to overcome the deficiencies of Bhandari.

Moreover, in the last response applicants argued that the combination of Bhandari and Loui '99 would have been improper, which the action failed to address. Bhandari does not describe, teach or otherwise relate to albuming as described in Loui '99. Indeed, Bhandari is directed to a "method for using natural language for the description, search and retrieval of multi-media objects." Bhandari, Abstract. Since Bhandari only focuses on performing natural language queries on the caption description, does not compare the date on which an image was

taken to anything and is not directed to albuming, one skilled in the art would not have modified Bhandari with Loui '99 as set forth in the action.

Claims 35-41

The action failed to address the arguments raised with respect to claims 35-41 in the last response. As such, applicants will repeat them here.

Claim 35 is directed to a method of organizing media objects in a database including, among other features, detecting a capture time for each of the media objects to be organized; sorting the media objects based upon the capture time to generate a sorted list; comparing the capture time of each of the media objects with a reference value; and grouping the media objects in the database based upon the comparison. The action alleges that Bhandari discloses detecting, but relies on Loui '99 to disclose the remaining steps of sorting, comparing and grouping. To show the step of comparing the capture time of each of the media objects with a reference value, the action points to p. 160, section 2.1, paragraph 1, lines 3-27 of Loui '99.

Contrary to the action's assertion, Loui '99 neither teaches nor suggests comparing the capture time of each of the media objects with a reference value. Instead, Loui '99 segments pictures using event clustering, which can involve analyzing pictures based on time differences to determine whether pictures are from the same event or different events. For at least this reason, the combination of Bhandari and Loui '99, even if proper, does not result in the claim 35 invention.

Moreover, for the same reasons set forth above with respect to claims 10 and 27, one skilled in the art would not have been motivated to modify Bhandari with Loui '99 in the manner set forth in the action.

Claims 36-41, which ultimately depend from claim 35, are patentably distinct from the combination of Bhandari and Loui '99 for the same reasons as their ultimate base claim and further in view of the novel and non-obvious features recited therein. For example, claim 40 calls for creating a new collection when the capture time of any one of the media objects from the sorted list is not within the predetermined time period from the updated reference value. To purportedly show this feature, the action points to col. 7, lines 36-41 of Bhandari. Yet Bhandari does not perform or suggest albuming as discussed above. Moreover, the cited passage of

Bhandari merely describes what occurs when the results of a search are unacceptable based on a predefined threshold, namely a search involving expanded keywords is performed.

Claims 11 and 28

Applicants submit that the combination of Bhandari with either Loui '99 or Loui '00, or both Loui '99 and Loui '00 does not result in the invention of claims 11 and 28 and would have been improper for substantially the same reasons set forth with respect to claims 10 and 27. Applicants note that the use of the term "global similarity" in Loui '00 does not provide a teaching or suggestion of global date book recited in claim 11.

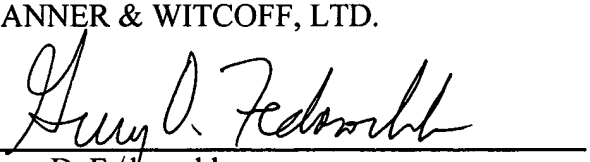
CONCLUSION

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: February 22, 2005 By: 

Gary D. Fedorochko
Registration No. 35,509

1001 G Street, N.W.
Washington, D.C. 20001-4597
Tel: (202) 824-3000
Fax: (202) 824-3001
GDF:lab